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United States Patent [19][11] **Patent Number:** **5,162,696****Goodrich**[45] **Date of Patent:** **Nov. 10, 1992**[54] **FLEXIBLE INCASEMENTS FOR LED
DISPLAY PANELS**

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Orchard Rd., Rochester, N.H. 03867*Primary Examiner*—Sandra L. O'Shea[21] **Appl. No.:** **609,756**[57] **ABSTRACT**[22] **Filed:** **Nov. 7, 1990**[51] **Int. Cl.⁵** **H05B 33/02**; G09F 13/22[52] **U.S. Cl.** **313/511**; 40/544;
40/597; 362/800; 362/812[58] **Field of Search** 313/511, 512; 362/800,
362/812, 806; 40/597, 544; 340/782, 786

The preferred embodiment of the present invention is an outer light transmissive envelope consisting of transparent rubber-like polyvinyl chloride (PVC) containing light emitting diode (LED) display panels comprised of a plurality of LED elements arranged in matrix formation. Aforementioned apparatus will have flexibility characteristics giving it the ability to conform to curved vertical surfaces that are flat and non-porous. Suction cup devices made of PVC will be bonded to the light transmissive envelope thus enabling the LED apparatus to be attached to vertical surfaces, making the unit self-supporting.

[56] **References Cited****U.S. PATENT DOCUMENTS**

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5 Claims, 1 Drawing Sheet